

## ABSTRACT OF THE DISCLOSURE

A dynamic particle size distribution analyzer is provided which has a very simple structure capable of reducing noise-causing scattering light. The particle size distribution analyzer includes: a transparent cell (2) for containing a sample containing particles (C) to be analyzed; a laser light irradiating section (4) for irradiating the sample with laser light from outside of the cell (2); a scattering light intensity detecting section (5) for detecting the irradiation of light scattered from the particles (C) irradiated with laser light; a calculating section (7) for calculating a particle size distribution of the particles (C) based on a fluctuation of the irradiation of scattering light detected which occurs due to Brownian motions of the particles (c); and a noise reducing section operative to reduce the amount of noise-causing scattering light becoming incident on the scattering light intensity detecting section (5), the noise reducing section comprising a region to be irradiated with laser light of at least one of outside surface (21a) and inside surface (21b) of the cell (2), the region being inclined a predetermined angle with respect to the optical axis of laser light. The noise-causing scattering light is caused by scratch of the cell (2) or the refractive index difference between the cell (2) and outside air.